CHAPTER 1

1.1 Introduction.

The finest tea in the world is produced in Sri Lanka. Ceylon Tea remains a cornerstone of
the economy of Sri Lanka, being second biggest export behind Garments. The cash crops
of Tea, Rubber & Coconut continue to contribute 15% of the foreign exchange of the
island. There are about 650 tea factories available in Srilanka. Currently only 550 tea
factories are in operation. Tea is one of the main income source in Sri Lankan gross
domestic production. Tea factory fires are one of the main concern which tea factory
owners had faced in past. Lot of direct & indirect losses had been resulted due to the tea
factory fires. As a solution tea factory owners are insuring their tea factories.

There are numerous possibilities that fire can be originated in a tea factory. Over the years
Sri-Lanka Insurance Corporation have been experienced that tea factory fires are
occasioned due to the various reasons. Purpose of this study is to minimize tea factory fire
occurrences & propose optimal solution to the tea factory owners regarding protection
methods & insurance aspects.

1.2 Production process

The entire production process, from plucking to packing, takes around 24 hours, The first
stage is plucking the leaves still extremely labor intensive, providing work for some
300,000 estate workers across the island (mainly but exclusively women). Tea pickers
select the youngest two leaves & bud from the end of every branch-bushes are plucked
every seven days in the dry season, twice as often in the wet.
Following plucking, leaves are dried by being spread out in huge troughs while air is blown through them to remove the moisture.

After which they are crushed for around thirty minutes, an action which releases juices & triggers fermentation—the conditions & length of time under which the leaves ferment is one of the crucial elements in determining the quality of the tea.
Once sufficient fermentation has taken place, the tea is dried in a **heated chamber**, preventing further fermentation & producing the black tea which is the staple form of the drink consumed worldwide.

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**Grading Tea**

The resultant bulk tea is then filtered into different-sized particles & graded. The finest teas-often described as "leaf" teas, since they consists of relatively large pieces of unbroken leaf-are known "pekoes", Lower grades are indicated by the addition of the word "broken", while at the bottom of the scale come "fannings" & "dust", which form the basis of most cheap commercial tea.
Weighing & packing of the final tea

Final tea is being packed in the bags. They are kept in the stores until final dispatching.
Main equipments & machinery uses in tea factory

(Orthodox Method)

1. Tea Weighing machines
2. Tea conveyors
3. Withering troughs- couple with motors
4. Tea rolling machine
   These rollers are come under several sizes (42,44,47,48 inches)
5. Tea sifting machines
6. Tea dryer
7. Tea Grading machines
   - Michi sifter
   - Middleton sifter
   - Chota sifter
   - Teri nipper
   - Winover
   - Electronic color separator
8. Stand by power generating machine

(CTC Method)

Instead of tea rollers, Tea cutters are employing in this method.